DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-029295
Date Inspected: 22-Mar-2013

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: On Site

CWI Name: N/A
CWI Present: ☐ Yes ☑ No

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Electrode to specification:	☐ Yes	☐ No	☑ N/A	**Weld Procedures Followed:**	☐ Yes	☐ No	☑ N/A
Qualified Welders:	☐ Yes	☐ No	☑ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☐ Yes	☐ No	☑ N/A	**Approved WPS:**	☐ Yes	☐ No	☑ N/A
				Delayed / Cancelled:	☐ Yes	☐ No	☑ N/A

Bridge No: 34-0006
Component: Tower Electroslag Welds

Summary of Items Observed:

The Caltrans OSM Quality Assurance (QA) Inspector Art Peterson was present during the times noted above to perform ultrasonic inspection verification on Electroslag welds inside of the Tower. The purpose of the ultrasonic inspection was for the detection of planar indications utilizing both the pulse echo (PE) technique and the pitch and catch (PC) technique for further discontinuity evaluation in the middle half of the material thickness on electroslag welds where previous discontinuities were detected by the single pulse echo search unit. The data collected from utilizing the pitch and catch technique is for information only and the ultrasonic test (UT) inspection was performed as a joint inspection with ABF/JV Quality Control (QC) Smith Emery NDT personnel. The summary of the joint ultrasonic inspection performed on this date was as follows:

Tower Electroslag Weld Identification: N-042 150º
Electroslag Weld: Weld #J - Shear Plate –"B" side only of weld.
Type of Joint: T (60) mm thick weld.
From Y Location: (6450) mm.
Results: (1) planar Indication with planar height characteristics – "B" side PE Decibel rating (+17) / PC Decibel rating (+12). "A" side of weld tested but due to orientation of indication no Decibel rating obtained in PE technique of testing.

Tower Electroslag Weld Identification: S-042 150º
Electroslag Weld: Weld #A - Shear Plate –"A" and "B" side of weld.
Type of Joint: Butt (60 to 70) mm thick transition weld.
From Y Location: (6855) mm.

Results: (1) planar Indication with no planar height characteristics – PE Decibel rating “A” side (+26) / PE Decibel rating “B” side (+15). PC technique not performed due to surface distance issues utilizing indirect placement of transducers.

Tower Electroslag Weld Identification: W-042 150º
Electroslag Weld: Weld #M - Shear Plate –“A” and “B” side of weld.
Type of Joint: T (60) mm thick weld.
From Y Location: (6500) mm.
Results: (1) planar Indication with no planar height characteristics – “A” Face PE Decibel rating (+27) / PC Decibel rating (+26); “B” Face PE Decibel rating (+23) / PC Decibel rating (+23).

Tower Electroslag Weld Identification: W-042 150º
Electroslag Weld: Weld #M - Shear Plate –“A” and “B” side of weld.
Type of Joint: T (60) mm thick weld.
From Y Location: (6640) mm.
Results: (1) planar Indication with no planar height characteristics – “B” side PE Decibel rating (+24) / PC not performed due to limited space issues with placement of transducers. “A” side of weld tested but due to orientation of indication no Decibel rating obtained in PE technique of testing.

Tower Electroslag Weld Identification: W-042 150º
Electroslag Weld: Weld #M - Shear Plate –“A” and “B” side of weld.
Type of Joint: T (60) mm thick weld.
From Y Location: (6760) mm of weld tested.
Results: (1) planar Indication with planar height characteristics – “A” side PE Decibel rating (+27) / PC Decibel rating (+20); “B” side PE Decibel rating (+23) / PC not performed due to limited space issues with placement of transducers.

Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel regarding the ultrasonic inspection utilizing the pulse echo and pitch and catch technique on Electroslag welds inside of the Tower on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas, 916-764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer